

### **Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claims 1-22 (Cancelled)

23. (New) Method for producing a progressive ophthalmic lens having at least one progressive surface, whereby the lens including a far vision part for seeing at great distances and having a far reference point, a near vision part for seeing at short distances and having a near reference point, and a progression zone situated between the far vision part and the near vision part, where the effect of the lens increases by an addition value along a principal line from a far reference point value to a near reference point value,

comprising calculating and optimizing in producing the progressive lens so that at least one of an absolute value of the rotation  $|\text{rot}\bar{A}|$  and the divergence  $|\text{div}\bar{A}|$  of a vectorial astigmatism  $\bar{A}$  is as small as possible, an absolute value  $|\bar{A}|$  of the vectorial astigmatism  $\bar{A}$  is proportional to an absolute value of an astigmatism in a use position of the progressive lens or a surface astigmatism of the at least one progressive surface, and a direction of the vectorial astigmatism  $\bar{A}$  is proportional to a cylinder axis of an astigmatism in the use position of the progressive lens or a surface astigmatism of the at least one progressive surface of the progressive lens.

24. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that global maximum of the absolute value  $|\text{div } \bar{A}|$  of the divergence of the vectorial astigmatism  $\bar{A}$  is outside the zone of good visual acuity of the lens in which the absolute value of the vectorial astigmatism  $|\bar{A}|$  is less than 0.6 dpt.

25. (New) Method as claimed in Claim 24, wherein the absolute value of the vectorial astigmatism  $|\bar{A}|$  is located in a peripheral area of the lens.

26. (New) Method as claimed in Claim 23, wherein, the calculating and optimizing are performed so that an x coordinate of a position of the global maximum of the absolute value  $|\text{div } \bar{A}|$  of the divergence of the vectorial astigmatism  $\bar{A}$  is greater than 6.0 mm and the y coordinate is less than -8.5 mm, and wherein x is the horizontal axis and y is the vertical axis in the use position and the zero point  $x = 0, y = 0$  is 4 mm below a centering point of the lens.

27. (New) Method as claimed in Claim 23, wherein, the calculating and optimizing are performed so that all extremes of the absolute value  $|\text{div } \bar{A}|$  of the divergence of the vectorial astigmatism  $\bar{A}$  which exceed a value of (0.1/mm) times the addition for all progressive surfaces  $\geq 2.0$  dpt are outside of a range  $y \geq -9$  mm of the lens.

28. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that the absolute value  $|\text{rot}\bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  in the near vision part and/or in the far vision part does not exceed a maximum value of  $|\text{rot}\bar{A}|_{\max} \approx 0.25$  addition/dpt\*dpt/mm.

29. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that the absolute value  $|\text{rot}\bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14$  mm does not exceed a maximum value of  $|\text{rot}\bar{A}|_{\max} \approx 0.115$  addition/dpt\*dpt/mm.

30. (New) Method as claimed in Claim 29, wherein the maximum value of  $|\text{rot}\bar{A}|_{\max} \approx 0.08$  addition/dpt\*dpt/mm.

31. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that the absolute value  $|\text{rot}\bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = +6$  mm does not exceed a maximum value of  $|\text{rot}\bar{A}|_{\max} \approx 0.115$  addition/dpt\*dpt/mm.

32. (New) Method as claimed in Claim 31, wherein  $|\text{rot}\bar{A}|_{\max} \approx 0.06$  addition/dpt\*dpt/mm.

33. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that in the far vision part between  $y = 3$  mm and  $y = 5$  mm there is a horizontal section  $y = \text{const}$  along which the absolute value  $|\text{rot}\bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  increases monotonically from the principal line outward to a coordinate of  $|x| = 16$  mm.

34. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = 0$  mm does not exceed a maximum value of  $(\text{div } \bar{A})_{\max} \approx (0.11 \text{ addition/dpt} + 0.03) \text{ dpt/mm}$ .

35. (New) Method as claimed in claim 34, wherein  $(\text{div } \bar{A})_{\max} \approx (0.11 \text{ addition/dpt} + 0.03) \text{ dpt/mm}$ .

36. (New) Method as claimed in claim 23, wherein the calculating and optimizing are performed so that the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = 0$  mm does not drop below a minimum value of  $(\text{div } \bar{A})_{\min} \approx (-0.07 \text{ addition/dpt} - 0.11) \text{ dpt/mm}$ .

37. (New) Method as claimed in Claim 34, wherein  $(\text{div } \bar{A})_{\max} \approx (0.08 \text{ addition/dpt} + 0.03) \text{ dpt/mm}$ .

38. (New) Method as claimed in Claim 23, wherein the calculating and optimizing step is performed so that the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14$  mm does not exceed a maximum value of  $(\text{div } \bar{A})_{\max} \approx (0.12 \text{ addition/dpt} + 0.06) \text{ dpt/mm}$ .

39. (New) Method as claimed in Claim 23, wherein the calculating and optimizing are performed so that the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14$  mm does not drop below a minimum value of  $(\text{div } \bar{A})_{\min} \approx (-0.13 \text{ addition/dpt} - 0.05) \text{ dpt/mm}$ .

40. (New) Progressive ophthalmic lens having at least one progressive surface, comprising:

a far vision designed for seeing at great distances and having a far reference point,

a near vision part for seeing at short distances and having a near reference point, and

a progression zone situated between the far vision part and the near vision part where the effect of the lens increases from an addition value along a principal line from a far reference point value to a near reference point value, wherein at least one of

a global maximum of the absolute value  $|\text{div} \bar{A}|$  of the divergence of a vectorial astigmatism  $\bar{A}$  is outside a zone of good visual acuity of the lens in which the absolute value of vectorial astigmatism  $|\bar{A}|$  is less than 0.6 dpt and is locatable in a peripheral area of the lens and

an absolute value  $|\text{rot} \bar{A}|$  of a rotation of the vectorial astigmatism  $\bar{A}$  in the near vision part and/or in the far vision part does not exceed a maximum value of  $|\text{rot} \bar{A}|_{\max} \approx 0.25 \text{ addition/dpt} \cdot \text{dpt/mm}$ , and

whereby the absolute value  $|\bar{A}|$  of the vectorial astigmatism  $\bar{A}$  is proportional to the absolute value of an astigmatism in a use position of the progressive lens or a surface astigmatism of the at least one progressive surface, and a direction of the vectorial astigmatism  $\bar{A}$  is proportional to a cylinder axis of an astigmatism in the use position of the progressive lens or a surface astigmatism of the at least one progressive surface of the progressive lens.

41. (New) Progressive lens as claimed in Claim 39, wherein an x coordinate of a position of the global maximum of the absolute  $\bar{A}$  value  $|\text{div } \bar{A}|$  of the divergence of the vectorial astigmatism  $\bar{A}$  is greater than 6.0 mm and the y coordinate is less than -8.5 mm, and wherein x is the horizontal axis and y is the vertical axis in the use position, and the zero point  $x = 0, y = 0$  is located 4 millimeters below the centering point of the lens.

42. (New). Progressive lens as claimed in Claim 39, wherein for all progressive surfaces with addition  $\geq 2.0$  dpt, all extremes of the absolute value  $|\text{div } \bar{A}|$  of the divergence of the vectorial astigmatism  $\bar{A}$  exceeding the value of (0.1/mm) times the addition are outside of the range  $y \geq -9$  mm of the lens.

43. (New) Progressive lens as claimed in Claim 42, wherein Progressive ophthalmic lens having at least one progressive surface, comprising:

a far vision designed for seeing at great distances and having a far reference point,

a near vision part for seeing at short distances and having a near reference point, and

a progression zone situated between the far vision part and the near vision part where the effect of the lens increases from an addition value along a principal line from a far reference point value to a near reference point value, wherein at least one of

a global maximum of the absolute value  $|\text{div } \bar{A}|$  of the divergence of a vectorial astigmatism  $\bar{A}$  is outside a zone of good visual acuity of the lens in

which the absolute value of vectorial astigmatism  $|\bar{A}|$  is less than 0.6 dpt and is locatable in a peripheral area of the lens and

– an absolute value  $|\text{rot } \bar{A}|$  of a rotation of the vectorial astigmatism  $\bar{A}$  in the near vision part and/or in the far vision part does not exceed a maximum value of  $|\text{rot } \bar{A}|_{\max} \approx 0.25 \text{ addition/dpt} \geq \text{dpt/mm}$ , and

whereby the absolute value  $|\bar{A}|$  of the vectorial astigmatism  $\bar{A}$  is proportional to the absolute value of an astigmatism in a use position of the progressive lens, and the direction of the vectorial astigmatism  $\bar{A}$  is proportional to a cylinder axis of an astigmatism in the use position of the progressive lens or a surface astigmatism of the at least one progressive surface of the progressive lens.

44. (New) Progressive lens as claimed in Claim 39, wherein the absolute value  $|\text{rot } \bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14 \text{ mm}$  does not exceed a maximum value of  $|\text{rot } \bar{A}|_{\max} \approx 0.115 \text{ addition/dpt} \cdot \text{dpt/mm}$ , preferably  $|\text{rot } \bar{A}|_{\max} \approx 0.08 \text{ addition/dpt} \cdot \text{dpt/mm}$ .

45. (New) Progressive lens as claimed in Claim 44, wherein  $|\text{rot } \bar{A}|_{\max} \approx 0.08 \text{ addition/dpt} \cdot \text{dpt/mm}$ .

46. (New) Progressive lens as claimed in Claim 39, wherein the absolute value  $|\text{rot } \bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = +6 \text{ mm}$  does not exceed a maximum value of  $|\text{rot } \bar{A}|_{\max} \approx 0.115 \text{ addition/dpt} \cdot \text{dpt/mm}$ .

47. (New) Progressive lens as claimed in Claim 46, wherein  $|\text{rot } \bar{A}|_{\max} \approx 0.06 \text{ addition/dpt} \cdot \text{dpt/mm}$ .

48. (New) Progressive lens as claimed in Claim 39, wherein in the far vision part between  $y = 3 \text{ mm}$  and  $y = 5 \text{ mm}$  there is a horizontal section  $y = \text{const}$  along which the absolute value  $|\text{rot } \bar{A}|$  of the rotation of the vectorial astigmatism  $\bar{A}$  increases monotonically from the principal line outward to a coordinate of  $|x| = 16 \text{ mm}$ .

49. (New) Progressive lens as claimed in Claim 39, wherein the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = 0 \text{ mm}$  does not exceed a maximum value of  $(\text{div } \bar{A})_{\max} \approx (0.11 \text{ addition/dpt} + 0.03) \text{ dpt/mm}$ .

50. (New) Progressive lens as claimed in Claim 49, wherein  $(\text{div } \bar{A})_{\max} \approx (0.08 \text{ addition/dpt} + 0.03) \text{ dpt/mm}$ .

51. (New) Progressive lens as claimed in Claim 39, wherein the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = 0 \text{ mm}$  does not drop below a minimum value of  $(\text{div } \bar{A})_{\min} \approx (-0.07 \text{ addition/dpt} - 0.11) \text{ dpt/mm}$ .

52. (New) Progressive lens as claimed in Claim 51, wherein  $(\text{div } \bar{A})_{\min} \approx (-0.05 \text{ addition/dpt} - 0.08) \text{ dpt/mm}$ .



53. (New) Progressive lens as claimed in Claim 39, wherein the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14$  mm does not exceed a maximum value of  $(\text{div } \bar{A})_{\max} \approx (0.12 \text{ addition/dpt} + 0.06) \text{ dpt/mm}$ .

54. (New) Progressive lens as claimed in Claim 39, wherein the divergence  $\text{div } \bar{A}$  of the vectorial astigmatism  $\bar{A}$  in the horizontal section at  $y = -14$  mm does not drop below a minimum value of  $(\text{div } \bar{A})_{\min} \approx (-0.13 \text{ addition/dpt} - 0.05) \text{ dpt/mm}$ .